



2827

Electronic Filing System (EFS) Data  
Electronic Patent Application Submission  
USPTO Use Only

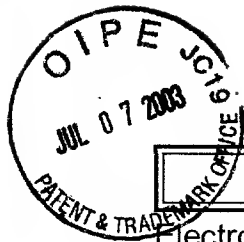
RECEIVED  
JUL -9 2003  
TECHNOLOGY CENTER 2800

EFS ID: 43002  
Application ID: 09997272  
Title of Invention: Thermally and Electrically  
Enhanced Ball Grid Array  
Packaging  
First Named Inventor: Sam Zhao  
Domestic/Foreign Application: Domestic Application  
Filing Date: 2001-11-30  
Effective Receipt Date: 2003-07-07  
Submission Type: Information Disclosure  
Statement  
Filing Type:  
Confirmation number: 2600  
Attorney Docket Number: 1875.2200001



Total Fees Authorized:

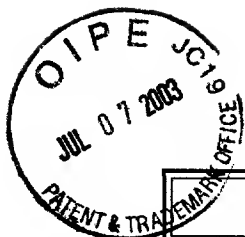
Digital Certificate Holder: cn=Jeffrey Weaver,ou=Registered Attorneys,ou=Patent and Trademark  
Office,ou=Department of Commerce,o=U.S. Government,c=US  
Certificate Message Digest: 372d8a79cd9bc07797d54db29ba19a69ed4086e3

**TRANSMITTAL**

Electronic Version v1.1  
Stylesheet Version v1.1.0

RECEIVED  
JUL - 9 2003  
TECHNOLOGY CENTER 2800

<b>Title of Invention</b>	Thermally and Electrically Enhanced Ball Grid Array Packaging									
Application Number: 09/997272 Date: 2001-11-30 First Named Applicant: Sam Ziqun Zhao										
Confirmation Number: 2600 Attorney Docket Number: 1875.2200001										
<p>I hereby certify that the use of this system is for OFFICIAL correspondence between patent applicants or their representatives and the USPTO. Fraudulent or other use besides the filing of official correspondence by authorized parties is strictly prohibited, and subject to a fine and/or imprisonment under applicable law.</p> <p>I, the undersigned, certify that I have viewed a display of document(s) being electronically submitted to the United States Patent and Trademark Office, using either the USPTO provided style sheet or software, and that this is the document(s) I intend for initiation or further prosecution of a patent application noted in the submission. This document(s) will become part of the official electronic record at the USPTO.</p>										
<table border="1"><thead><tr><th>Submitted by:</th><th>Elec. Sign.</th><th>Sign. Capacity</th></tr></thead><tbody><tr><td>Jeffrey S. Weaver Registered Number: 45,608</td><td>/jsw/</td><td>Attorney</td></tr></tbody></table>			Submitted by:	Elec. Sign.	Sign. Capacity	Jeffrey S. Weaver Registered Number: 45,608	/jsw/	Attorney		
Submitted by:	Elec. Sign.	Sign. Capacity								
Jeffrey S. Weaver Registered Number: 45,608	/jsw/	Attorney								
<table><tr><td><b>Documents being submitted</b></td><td><b>Files</b></td></tr><tr><td>us-ids</td><td>IDS18752200001-usidst.xml</td></tr><tr><td></td><td>us-ids.dtd</td></tr><tr><td></td><td>us-ids.xsl</td></tr></table>			<b>Documents being submitted</b>	<b>Files</b>	us-ids	IDS18752200001-usidst.xml		us-ids.dtd		us-ids.xsl
<b>Documents being submitted</b>	<b>Files</b>									
us-ids	IDS18752200001-usidst.xml									
	us-ids.dtd									
	us-ids.xsl									
<b>Comments</b>										



## ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

Title of Invention	Thermally and Electrically Enhanced Ball Grid Array Packaging																																																																																																																
<p>Application Number: 09/997272</p> <p>Confirmation Number: 2600</p> <p>First Named Applicant: Sam Zhao</p> <p>Attorney Docket Number: 1875.2200001</p> <p>Search string: ( 3790866 or 5045921 or 5397917 or 5438216 or 5490324 or 5583378 or 5578869 or 5642261 or 5648679 or 5736785 or 5796170 or 5798909 or 5801432 or 5843808 or 5889324 or 5903052 or 5972734 or 5999415 or 6028358 or 6057601 or 6069407 or 6114761 or 6117797 or 6122171 or 6140707 or 6212070 or 6242279 or 6347037 or 6362525 or 6380623 or 20020109226 or 20020180040 or 20020053731 or 20020072214 or 20020096767 or 20020098617 ),pn.</p>																																																																																																																	
<p>US Patent Documents</p> <p>Note: Applicant is not required to submit a paper copy of cited US Patent Documents</p> <table border="1"><thead><tr><th>init</th><th>Cite.No.</th><th>Patent No.</th><th>Date</th><th>Patentee</th><th>Kind</th><th>Class</th><th>Subclass</th></tr></thead><tbody><tr><td></td><td>1</td><td>3790866</td><td>1974-02-05</td><td>Meyer et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>2</td><td>5045921</td><td>1991-09-03</td><td>Lin et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>3</td><td>5397917</td><td>1995-03-14</td><td>Ommen et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>4</td><td>5438216</td><td>1995-08-01</td><td>Juskey et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>5</td><td>5490324</td><td>1996-02-13</td><td>Newman</td><td></td><td></td><td></td></tr><tr><td></td><td>6</td><td>5583378</td><td>1996-12-10</td><td>Marrs et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>7</td><td>5578869</td><td>1996-11-26</td><td>Hoffman et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>8</td><td>5642261</td><td>1997-06-24</td><td>Bond et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>9</td><td>5648679</td><td>1997-07-15</td><td>Chillara et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>10</td><td>5736785</td><td>1998-04-07</td><td>Chiang et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>11</td><td>5796170</td><td>1998-08-18</td><td>Marcantonio</td><td></td><td></td><td></td></tr><tr><td></td><td>12</td><td>5798909</td><td>1998-08-25</td><td>Bhatt et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>13</td><td>5801432</td><td>1998-09-01</td><td>Rostoker et al.</td><td></td><td></td><td></td></tr></tbody></table>		init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass		1	3790866	1974-02-05	Meyer et al.					2	5045921	1991-09-03	Lin et al.					3	5397917	1995-03-14	Ommen et al.					4	5438216	1995-08-01	Juskey et al.					5	5490324	1996-02-13	Newman					6	5583378	1996-12-10	Marrs et al.					7	5578869	1996-11-26	Hoffman et al.					8	5642261	1997-06-24	Bond et al.					9	5648679	1997-07-15	Chillara et al.					10	5736785	1998-04-07	Chiang et al.					11	5796170	1998-08-18	Marcantonio					12	5798909	1998-08-25	Bhatt et al.					13	5801432	1998-09-01	Rostoker et al.			
init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass																																																																																																										
	1	3790866	1974-02-05	Meyer et al.																																																																																																													
	2	5045921	1991-09-03	Lin et al.																																																																																																													
	3	5397917	1995-03-14	Ommen et al.																																																																																																													
	4	5438216	1995-08-01	Juskey et al.																																																																																																													
	5	5490324	1996-02-13	Newman																																																																																																													
	6	5583378	1996-12-10	Marrs et al.																																																																																																													
	7	5578869	1996-11-26	Hoffman et al.																																																																																																													
	8	5642261	1997-06-24	Bond et al.																																																																																																													
	9	5648679	1997-07-15	Chillara et al.																																																																																																													
	10	5736785	1998-04-07	Chiang et al.																																																																																																													
	11	5796170	1998-08-18	Marcantonio																																																																																																													
	12	5798909	1998-08-25	Bhatt et al.																																																																																																													
	13	5801432	1998-09-01	Rostoker et al.																																																																																																													

RECEIVED  
JUL -9 2003  
TECHNOLOGY CENTER 2800

	14	5843808	1998-12-01	Karnezos	
	15	5889324	1999-03-30	Suzuki	
	16	5903052	1999-05-11	Chen et al.	
	17	5972734	1999-10-26	Carichner et al.	
	18	5999415	1999-12-07	Hamzehdoost	
	19	6028358	2000-02-22	Suzuki	
	20	6057601	2000-05-02	Lau et al.	
	21	6069407	2000-05-30	Hamzehdoost	
	22	6114761	2000-09-05	Mertol et al.	
	23	6117797	2000-09-12	Hembree	
	24	6122171	2000-09-19	Akram et al.	
	25	6140707	2000-10-31	Plepys et al.	
	26	6212070	2001-04-03	Atwood et al.	B1
	27	6242279	2001-06-05	Ho et al.	B1
	28	6347037	2002-02-12	Iijima et al.	B2
	29	6362525	2002-03-26	Rahim	B1
	30	6380623	2002-04-30	Demore	B1

## US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
	1	20020109226	2002-08-15	Khan et al.	A1		
	2	20020180040	2002-12-05	Camenforte et al.	A1		
	3	20020053731	2002-05-09	Chao et al.	A1		
	4	20020072214	2002-06-13	Yuzawa et al.	A1		
	5	20020096767	2002-07-25	Cote et al.	A1		
	6	20020098617	2002-07-25	Lee et al.	A1		

Signature

Examiner Name	Date